

Datasheet: MCA4635PE

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|----------------------|------------------------|
| Description: | RAT ANTI MOUSE CD4:RPE |
| Specificity: | CD4 |
| Other names: | L3T4 ANTIGEN, LY-4 |
| Format: | RPE |
| Product Type: | Monoclonal Antibody |
| Clone: | GK1.5 |
| Isotype: | IgG2b |
| Quantity: | 100 TESTS |

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

| | Yes | No | Not Determined | Suggested Dilution |
|----------------|-----|----|----------------|--------------------|
| Flow Cytometry | ▪ | | | Neat |

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

| Target Species | Mouse | | | | | | |
|------------------------|---|-------------------|---------------------|-------------------|-----------------|-----|-----|
| Product Form | Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized | | | | | | |
| Reconstitution | Reconstitute with 1ml distilled water | | | | | | |
| Max Ex/Em | <table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>RPE 488nm laser</td> <td>496</td> <td>578</td> </tr> </tbody> </table> | Fluorophore | Excitation Max (nm) | Emission Max (nm) | RPE 488nm laser | 496 | 578 |
| Fluorophore | Excitation Max (nm) | Emission Max (nm) | | | | | |
| RPE 488nm laser | 496 | 578 | | | | | |
| Preparation | Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant | | | | | | |
| Buffer Solution | Phosphate buffered saline | | | | | | |
| Preservative | 0.09% Sodium Azide (NaN ₃) | | | | | | |
| Stabilisers | 1% Bovine Serum Albumin 5% Sucrose | | | | | | |

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|--------------------------------|---|
| Immunogen | Murine CD4. |
| External Database Links | <p>UniProt: P06332 Related reagents</p> <p>Entrez Gene: 12504 Cd4 Related reagents</p> |
| RRID | AB_10612250 |
| Fusion Partners | Spleen cells from immunised Lewis rats were fused with cells of the SP2/0 myeloma cell line. |
| Specificity | <p>Rat anti Mouse CD4 antibody, clone GK1.5 recognizes mouse CD4, a ~55 kDa protein also known as Ly-4 and L3T4. CD4 is a single chain transmembraneous glycoprotein which belongs to the immunoglobulin superfamily, and is primarily expressed on T helper cells, peripheral blood monocytes and tissue macrophages. CD4 is also expressed on a subpopulation of regulatory T cells (CD4⁺ CD25⁺), which play a key role in the maintenance of self tolerance.</p> <p>Rat anti Mouse CD4 antibody, clone GK1.5 has been reported to block CD4⁺ T-cell activation. It blocks class II MHC antigen-specific binding, thereby inhibiting functions such as class II MHC antigen-specific proliferation and the release of lymphokines. It may also be used for <i>in vivo</i> and <i>in vitro</i> cell depletion of CD4⁺ T-cells.</p> |
| Flow Cytometry | <p>Use 10ul of the suggested working dilution to label 1x10⁶ cells in 100ul.</p> <p>The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR (BUF041A/B).</p> |
| References | <ol style="list-style-type: none"> Dialynas, D.P. <i>et al.</i> (1983) Characterization of the murine T cell surface molecule, designated L3T4, identified by monoclonal antibody GK1.5: similarity of L3T4 to the human Leu-3/T4 molecule. J Immunol. 131 (5): 2445-51. Wilde, D.B. <i>et al.</i> (1983) Evidence implicating L3T4 in class II MHC antigen reactivity; monoclonal antibody GK1.5 (anti-L3T4a) blocks class II MHC antigen-specific proliferation, release of lymphokines, and binding by cloned murine helper T lymphocyte lines. J Immunol. 131 (5): 2178-83. Näher, H. <i>et al.</i> (1985) Dynamics of T cells of L3T4 and Ly 2 phenotype within granulomas in murine listeriosis. Clin Exp Immunol. 60 (3): 559-64. Ye, X. <i>et al.</i> (2000) Transient depletion of CD4 lymphocyte improves efficacy of repeated administration of recombinant adenovirus in the ornithine transcarbamylase deficient sparse fur mouse. Gene Ther. 7 (20): 1761-7. Chu, N.R. <i>et al.</i> (2000) Immunotherapy of a human papillomavirus (HPV) type 16 E7-expressing tumour by administration of fusion protein comprising <i>Mycobacterium bovis</i> bacille Calmette-Guérin (BCG) hsp65 and HPV16 E7. Clin Exp Immunol. 121:216-25 Zhou, Z. <i>et al.</i> (2011) Autoreactive marginal zone B cells enter the follicles and interact with CD4⁺ T cells in lupus-prone mice. BMC Immunol. 12: 7. |

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10. Olesen, M. N. *et al.* (2018) CD4 T cells react to local increase of α -synuclein in a pathology-associated variant-dependent manner and modify brain microglia in absence of brain pathology [Heliyon. 4 \(1\): e00513.](#)
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Further Reading 1. Dialynas, D.P. *et al.* (1983) Characterization of the murine antigenic determinant, designated L3T4a, recognized by monoclonal antibody GK1.5: expression of L3T4a by functional T cell clones appears to correlate primarily with class II MHC antigen-reactivity. [Immunol Rev. 74: 29-56.](#)

Storage Prior to reconstitution store at +4°C. Following reconstitution store at +4°C.

DO NOT FREEZE.

This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #20487 available at: <https://www.bio-rad-antibodies.com/SDS/MCA4635PE> 20487

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'M419440:230616'

Printed on 12 Aug 2023